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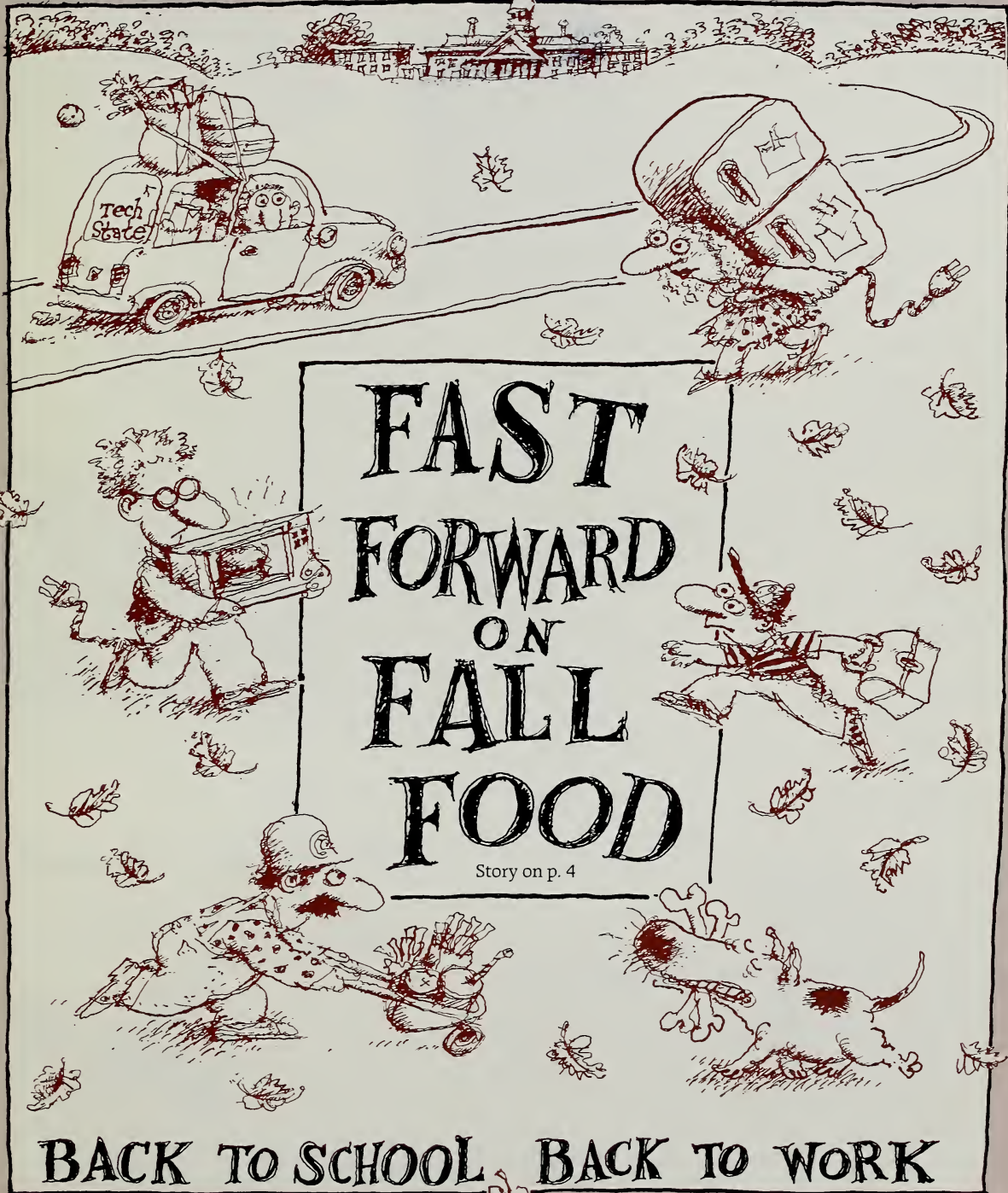
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# FOOD NEWS

## FOR CONSUMERS

United States Department of Agriculture Volume 4 Number 3 Fall 1987

AUG 18 '89



# FAST FORWARD ON FALL FOOD

Story on p. 4

**BACK TO SCHOOL** **BACK TO WORK**

The Romance of Spices

How to Read Meat & Poultry Labels

Kids — An Open Lunchbox Quiz

# FOOD NEWS

## FOR CONSUMERS

Fall 1987  
Vol. 4, No. 3

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## Ask the Consumer Advisor



Dear Ms. Chadwick:

I've seen a lot lately about FDA and various food tampering incidents. What is USDA doing to protect meat and poultry products?

Dear Reader:

Last year was a difficult one for the Food and Drug Administration. FDA handled some 650 food tampering reports in 1986, up from about 50 such incidents in 1985. Many of them, fortunately, were false alarms.

Because of the magnitude of the problem, FDA has moved from a regulatory-only stance to one of actively offering food producers help in tampering crisis management. FDA representatives, for instance, are urging companies to set up crisis management teams both to better protect the public with timely information and to save the company unnecessary losses in hoax and "scare" situations.

By comparison, USDA has had fewer reported problems with meat and poultry products—some 53 incidents last year. Still, USDA's Food Safety and Inspection Service, which monitors tampering outbreaks, has specially trained staff in the Emergency Programs unit to handle these problems. Emergency Programs staff have recently taken the FBI course on tampering investigation.

Responding to requests from the meat and poultry industry, we've also recently sponsored tamper-prevention workshops for a number of industry groups. This training is aimed at helping companies set up effective tampering response plans.

In short, FDA, USDA and the food industry are all working together on solutions to tampering. But the best protection is still consumer awareness. It's up to the individual, after all, to check whether that wrapping has been broken. Look carefully at items before you buy them and again before you prepare them. As always, forethought counts.

Sincerely,

*Ann Collins Chadwick*

ANN COLLINS CHADWICK, Director  
Office of the Consumer Advisor  
Phone: (202) 382-9681

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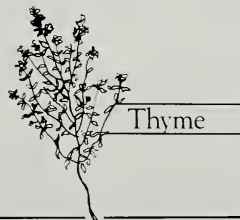
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## Consumer Education

### Hotline Calling— Those “Back to School” Questions

Super-hero lunchboxes aren't the only cases carrying food away from home this fall. Busy grownups will be saving time and money taking the “executive” lunchbag to work. College students will haul food back to the dorm. They'll be microwaving in the dorm too.

Naturally all this activity raises some unusual food handling questions. So here are answers to some of the food-in-transit questions we're getting on USDA's Meat and Poultry Hotline (800) 535-4555 these days.

**Q:** My son likes to take leftovers and prepared foods back to college with him after a weekend at home. It's a three-hour drive. How can he transport these cooked foods safely?

**A:** Traveling with food takes careful planning. Otherwise, on a three-hour drive, food poisoning bacteria can multiply in the food.

Since it would be difficult to keep foods hot enough to be safe for that period, the best plan is to completely cool cooked foods in the refrigerator before he leaves. Divide quantities into smaller, shallow containers for fast cooling.



Then pack a cooler with an ice source and the thoroughly cold foods. Freezing foods prior to travel is also an option.

Keep the cooler in the passenger area of the car in warm weather. When your son arrives, caution him to quickly store his “care packages” in the refrigerator.

**Q:** Very often I use a hot plate to cook my meal in the dorm. I can never seem to get my food very hot though. How safe is it to eat luke-warm food or rare meat?

**A:** To be absolutely safe, raw food should be cooked to an internal temperature of at least 160° F; 180° F for poultry. This should kill any bacteria that may be in the raw food. Cooked food you warm on a hot plate should reach 160° F too.

**Q:** My roommates and I often store lunchmeat and milk on the ledge outside our dorm window. But I've heard that isn't a good idea. Why not? It's cold out there!

**A:** But how long could you count on the temperature staying cold, which for food safety purposes means 40° F or below? Even if you had a thermometer on the ledge, said one of our microbiologists, it wouldn't help since you can't be there every minute to monitor the situation. Further, the experts advised, buildings radiate heat, making the sill warmer than the outside temperature. And, if you use a metal box to protect food from birds and animals, the box could also act as an “oven” in direct sun.

**Q:** My parents gave me a microwave oven for my dorm room. I follow the instruction book, but my food never seems to get as done as I like in the suggested time. What am I doing wrong?



**A:** Probably nothing. The amount of electrical wattage that operates a microwave oven can be affected when other equipment drains current from the same circuit. Often in a large building like a dormitory with many lights and appliances, longer cooking time is needed to microwave food.

Further, the time required can vary each time you use the oven depending on what else is then in use.

Be patient, experiment, and check the doneness several times during cooking. If your oven has a temperature probe, use it. Or check internal temperature with a meat thermometer after the recommended standing time.

It's better to underestimate cooking time and add a few minutes or seconds than to overcook. Overcooking in a microwave often means ruin.

**Q:** There's a small refrigerator in my office. Lots of people bring in lunches so it gets crowded. It usually feels warm in there. How can I tell if the refrigerator is keeping my ham sandwiches cold enough to stay safe?

**A:** The colder food is kept, the less chance bacteria has to grow. To make sure your refrigerator is giving you good protection against bacterial growth, check it with an appliance thermometer. It should register 40° F or lower.

**Q:** I like to take a thermos of homemade chicken soup to work for lunch. How can I do this safely?

**A:** A clean, well-functioning thermos can keep your hot food at a safe temperature for several hours. Check the seal around the stopper to make sure it fits tightly to retain the heat.

Right before use, rinse the clean thermos with boiling water. Then bring the soup to a boil before pouring it in. This will keep the temperature as high as possible until you're ready to eat it.

If you can keep your food above 140°F—hot to the touch—it should stay safe. Discard any leftovers.

**Q:** I'm a traveling salesperson and often don't have time to stop for lunch, so I take my "brown bag" in the car. Last week I got very sick with a stomach flu after eating my roast beef sandwich. Could this have been food poisoning?

**A:** Quite possibly. The symptoms of foodborne illness are often mild-to-severe nausea, vomiting, diarrhea, headaches and body aches. No wonder you thought you had the flu.

Bacteria introduced onto the meat while you were preparing your lunch could have grown to dangerous levels while the sandwich was unrefrigerated.

Since food poisoning bacteria grow well at warm temperatures, meat and poultry products shouldn't stay at room temperature—or above—for over two hours. And temperatures in a car, even on a cool day, get quite high.

The next time you take a meat, poultry or egg sandwich with you, put it in a cooler or insulated lunch bag. Pack the cooler with an ice source—frozen juice or a freezer gel. A cold piece of fruit can also help keep a sandwich cold.

**Q:** Usually my child buys lunch at school, but I'm wondering how to safely pack a lunch for the field trips the class takes.

**A:** A field trip presents a logistical challenge. Usually the school requests that the lunch be packed in a disposable container. The bag lunches are then subjected to a bus ride, squashed in with lots of other lunches, and often stored off refrigeration on arrival. Challenging, yes, but not impossible.

Just follow these guidelines for a safe and tasty lunch for your on-the-go youngster:

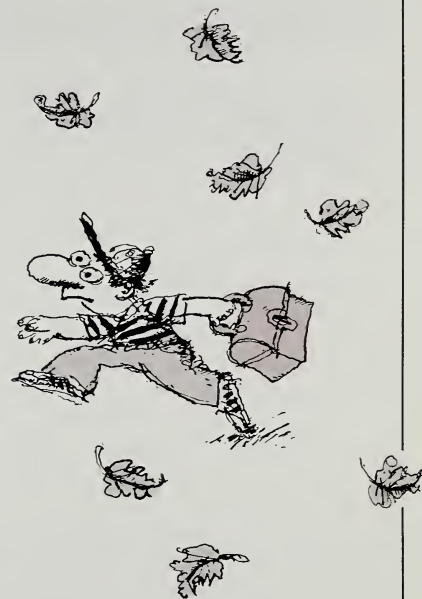
- Keep everything clean. Wash your hands, utensils and counter tops before fixing the lunch.

- It's important that meat and poultry products stay cold to avoid bacterial growth. Packaged lunch meat would be safe if frozen ahead of time and packed with something else cold like a piece of fruit.

- To keep everything cold, and to provide a disposable beverage, try freezing the no-refrigeration-needed juice that comes in a small carton. It will act as a block of ice to keep a sandwich cold.

- A firm coarse-textured bread like

whole-wheat, rye or pumpnickle stands up well to freezing and rough handling. Also pita, the middle eastern pocket bread, is fun and a sturdy filling container.



- Avoid meat or egg-based salads, sandwich spreads and home-cooked meats.

- Canned meats, in small individual containers are a good choice as are individually wrapped shelf-stable cheeses.

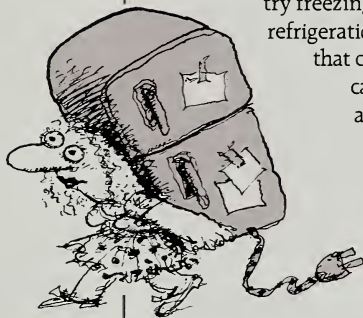
- The old stand-by, peanut butter and jelly, is a safe choice, but tends to get squashed.

- Sunflower seeds, nuts and raisins pack better than chips or pretzels. Pack sturdy fruits like apples or oranges.

- Be sure to put your child's name on the bag. Tie or staple it shut.

For answers to other questions on food on-the-go, call the Meat & Poultry Hotline (800-535-4555) Mon. through Fri., 10 a.m.-4 p.m. Or write for **SAFE FOOD TO GO**, the Consumer Information Center, Pueblo, Col. 81009.

—Susan Templin







## Special Features

### Label-Reading—The Great New American Pastime

More and more these days as you walk through the grocery store, you see people peering at cans and packages.

Why? Because consumers increasingly understand that for health and pocketbook reasons they need the information on the label.

Let's start with the **product name**. What does it tell you? As you can see from the chart (right), the U.S. Department of Agriculture, which regulates the production of meat and poultry products, has strict standards for the use of particular names.

For instance, beef stew must contain at least 25 percent beef; turkey pie at least 14 percent cooked turkey meat.

This is the Department's way of seeing to it that consumers get a product that meets their expectations. USDA standards also limit the amount of fat, moisture and other ingredients that can be added to a product recipe.

The photo or picture shown on the package must be honest too. If the label illustration shows five slices of beef, the package must contain at least five slices.

Then there's the **ingredients list**. That's where a lot of readers get bogged down in hydroxylated-chemico-terms. But you don't have to. The key to the ingredients list is that everything in the product is listed by weight, from most to least. A bottle of ketchup, for instance, might show tomatoes first, then vinegar, sugar, spices, etc.

Meat and poultry products making special claims—like "low calorie"—must also give **nutrition information**. This could be a listing of the calories, protein, carbohydrates and fat in a single serving of the product. Again, this is the Department's way of protecting the consumer by having the manufacturer explain exactly how beneficial the product is.

### Six Steps to Easy Label Reading

1. **Product Names and Illustration**—Your first clues to choosing the product you want.

2. **Ingredients and Net Weight**—tell what's in the product recipe and how much is in the container.

3. **Inspection Mark**—says the product has been inspected.

4. **Nutrition Information**—Check the nutrition list to see if the product is right for your diet.

5. **Special Handling Instructions and Dating**—Follow directions and use dates for safe keeping of products.

6. **Company name and lot number**—are important references for handling "problem" products.



Here are some other claims you may see on meat and poultry products with their USDA-mandated definitions.

- **Natural**—means that the meat or poultry product is minimally processed and contains no artificial flavors, colors or preservatives.

- **Lite, lighter, leaner and lower fat**—these products must contain 25 percent less fat than similar commercial products. Read carefully to see whether the reduction applies to fat, calories, sodium or breading.

- **Lean and low fat**—these products must contain 10 percent or less fat. The label will show the actual fat content of the product.

- **Extra lean**—products with 5 percent or less fat. Label will show fat content.

- **Lower or less salt or sodium**—these products must contain at least 25 percent less salt or sodium than the traditional version.

- **Reduced sodium**—products containing 75 percent less sodium than the traditional product.

- **Unsalted or no salt added**—products processed without salt. Note: Product could contain monosodium glutamate or another sodium source. Check the ingredients list.

- **Low sodium**—product must contain 140 milligrams (mg.) or less sodium per serving.

- **Very low sodium**—products containing 35 mg. or less sodium per serving.

- **Sodium free or salt free**—products must contain 5 mg. or less sodium per serving.

Next we come to the **inspection mark**, USDA's seal of approval. This is your assurance that the product comes from an approved, federally inspected plant. You will note two different USDA stamps on retail products. The stamp for meat uses an establishment number code (EST. 38, for example) to identify the plant where the meat was produced. In the poultry stamp, the parent plant is coded numerically as P-42, for example.

USDA requires the **name and address of the company** that made the product to be on the label too. Plus, many products give a **lot or batch number** which tells the day and shift in which the item was produced.

Knowing the company name and address, plant number and batch code is essential should you ever need to report a spoiled, tampered-with or otherwise "suspicious" product.

The final three pieces of information to be found on all meat and poultry product labels are the item's **net weight**—the weight of the product exclusive of the container, use-by or sell-by dates, and, in the case of perishable products, handling instructions.

While **product dating** is optional, the date stamped on is an excellent freshness guide. The "sell-by" date explains itself. That's the last day the product should be sold. The "Use-by" date, naturally, would be the last day you could expect top product quality.

Some products may have an expiration date which gives the last day the food should be used.

Perishable products must give **handling instructions** like "Keep Frozen" or "Keep Refrigerated."

Some canned hams or dried sausages may also be labeled "Fully Cooked" or "Ready-to-Eat." This indicates no further cooking is necessary.

For additional questions about meat and poultry labels, call USDA's Meat and Poultry Hotline, 800-535-4555.

AND you can order a free copy of our detailed booklet, "Meat and Poultry Labels Wrap It Up" (600-R), from F. James, Consumer Information Center, Pueblo, Col. 81009.

### USDA Standards for Popular Meat and Poultry Products

Product Name	Standard
Beef Stew	Must contain at least 25% beef
Chili Con Carne	At least 40% meat.
Chicken Soup	Ready to Eat — at least 2% chicken meat Condensed — at least 4% chicken meat.
Frankfurter, Bologna and Similar Cooked Sausage	May contain only skeletal meat No more than 30% fat, 10% added water, and 2% corn syrup No more than 15% poultry meat.
Frankfurter or Bologna "with Byproducts" or "with Variety Meats"	Same limitations on fat, added water, and corn syrup as products without variety meats Must contain at least 15% skeletal meat, and the terms "Variety Meats" or "Byproducts" must be part of the product name and in the ingredients list.
Ham-Water Added, Cooked or Cooked and Smoked	Must be from the hind legs of a hog, picnic hams are from the front legs. Both must contain at least 17 percent meat protein (fat-free)
Hamburger, Ground Beef, or Chopped Beef	No more than 30% fat, no extenders or other added substances except seasonings
Nuggets	Bite-size, solid pieces of meat and poultry Usually breaded and deep fat fried.
Nuggets, Chopped and Formed	Meat or poultry chopped and shaped into nuggets. "Chopped and Formed" must be part of the product name
Pizza with Sausage	At least 12% cooked sausage or 10% dry sausage, such as pepperoni.
Turkey Pie	At least 14% cooked turkey meat.
Turkey Ham	Cured turkey thigh meat.

# The Spicy Story Behind Some of Your Favorite Foods

by Mary Ann Parmley



Dill

From barbequed ribs to pepperoni pizza, Americans *like* spicy food. Increasingly, too, older Americans are changing their diets to cut down on salt. Spices make a good substitute.

The result is that Americans are using spices in record tonnage!

Tom Burns, of the American Spice Trade Association, says, "Counting spices used in commercially prepared foods, America is now the world's largest user of spices.

We consume over a half billion pounds of spice each year—1 to 2 pounds per person. That's a lot of parsley flakes, as they say."



Sage



Basil

This rundown of popular spices and the *many* foods they're used in will give you an idea where all those spices are going.

**Allspice.** Because the aroma suggests a blend of cloves, cinnamon and nutmeg, this berry from a Caribbean tree was named allspice. It's grown in Jamaica, Guatemala, Honduras and Mexico. Used in knockwurst, braunschweiger, pepperoni and mettwurst sausages, it also flavors Benedictine and chartreuse liqueurs.

**Anise.** Anise seed, known for its licorice flavor, was a digestive aid at Roman banquets and later a charm against bad dreams. Anise is used in pepperoni, baked goods, cough drops and cordial liqueurs. First grown in the Mediterranean, most of today's anise is from Turkey and Spain.

**Basil.** The basil leaf, known as the *herbe royale* in France, was once made into snuff. Grown in the United States but also brought from Egypt and France, basil is used in pizza, spaghetti sauce, tomato dishes, vegetable soup, beef stew, and with green vegetables and lamb. A member of the mint family, basil flavors chartreuse.

**Bay leaves.** The large leaves of the Mediterranean laurel, as in "winning one's laurels," are what we call bay leaves. Imported chiefly from Turkey and Greece, bay leaf is a savory addition to meat, potatoes, stews, soups, sauces and fish.



Allspice

**Caraway seed.** Brought by Roman soldiers to northern Europe, most of the caraway we use is from the Netherlands. A member of the parsley family, caraway adds zest to rye bread and other baked goods, cheese, pork, soups, stews, knockwurst, summer sausage and mettwurst. It flavors Kummel cordial.

**Cardamom seed.** The Vikings took cardamom from India to Scandinavia where this expensive spice has become a crucial ingredient in Danish pastry. It's used in Indian curry, apple and pumpkin pie, cotto salami, Vienna sausage and bierwurst. Oil of cardamom is used in perfume and tobacco. Exporters are India, Guatemala and Sri Lanka.

**Cinnamon.** Used in the Middle Ages in love potions, cinnamon is the dried bark of an evergreen tree. There are three types. Most Americans are familiar with "cassia" cinnamon from Indonesia and China. Our most important baking spice, cinnamon is also used in bratwurst and mortadella sausage. Mexican cuisine uses cinnamon in a frothy chocolate drink and in desserts.

**Clove.** The unopened bud of an evergreen, the clove has caused trade wars. Imported from Madagascar and Zanzibar, clove is used in baking and pickling, on ham, with sweet vegetables (onions, squash, sweet potatoes), and in braunschweiger, Vienna and other sausages. Oil of clove is used in perfume, soap and toothpaste.

Cumin



**Coriander.** Coriander seed is said to have scented the Hanging Gardens of Babylon. Imported today from Morocco and Rumania, coriander is used in baking, pickling and curry powder. It is the essential hotdog spice.

**Cumin seed.** For Americans, cumin is the *chili* spice. It's also in curry powder. Native to Egypt and used from early times, we get cumin from China, Turkey, India and Pakistan. It's popular in pork, sauerkraut, cheese and in many Indian, Near Eastern, South American and German dishes.

**Dill.** Once thought to "hinder witches of their will," dill has also been used as a nerve-calming tea. Both dill seed and "weed," actually the *leaves* of this parsley family plant, are used. Dill seed is used in pickles, meat, fish, potato salad, macaroni and sauerkraut. Dill weed is preferred for salads, sandwich fillings and boiled fish. A European native, some dill grows here; much comes from India.

**Fennel seed.** If you've used poultry seasoning, you've used fennel. Similar to anise, this spice is good in breads, apple pie, seafood and pork. It flavors Italian sausage. Native to Europe, we import most of our fennel from Egypt, India and China.

**Oregano.** This mint leaf, which the early Greeks called "joy of the mountain," flavors pizza and spaghetti sauce. It's also used in fish, cheese and egg dishes and with tomatoes, zucchini and green beans. Greece, Mexico and Turkey export oregano.

**Paprika.** Brought to Hungary from Turkey in the 16th century, this ground pepper pod created modern Hungarian

cuisine. The sweet paprika sold here is used to garnish salads, fish, meat, chicken, soups, eggs and vegetables. Sausage makers use it in wieners, bologna and Italian sausage. A sharper paprika is used in commercial foods. We get paprika from California, Spain, Hungary and Bulgaria.

**Red Pepper.** You've heard of 3-alarm chili? It's red pepper, ground from a dried pod, that sounds the alarm. At home you may sprinkle a little red pepper on meat, fish, eggs and vegetables, but commercial users carefully gauge its use. Red pepper sold commercially is "heat" rated. A mild pepper rates 5,000 heat units. A red-hot pepper could measure 60,000 units. Red pepper is raised in the United States and imported from India, China and Pakistan.

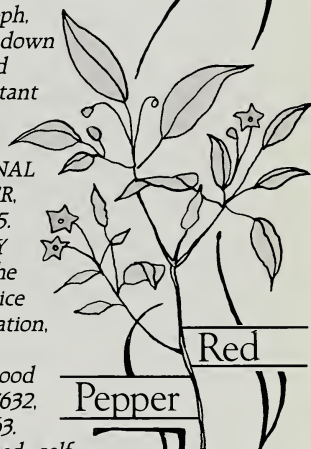
**Sage.** Here's a feminist note: Sage, a mint plant, was once thought to "thrive in the garden where the wife rules the home." Imported from Yugoslavia and Albania, sage is a primary ingredient in pork sausage. It's used in poultry seasoning, and sage cheese is a New England specialty.

**Savory.** The 5th-century Greek physician Hippocrates listed savory as a cure for liver trouble. What we know for certain is that savory, a leaf from the summer savory plant, is good in scrambled eggs, chicken, soups and sauces. It's part of the poultry seasoning mix. We import savory from Yugoslavia and France.

**Thyme.** A mint leaf, thyme flavors New England clam chowder, Creole fish dishes and stuffed poultry. It's used in fresh pork and beef sausage. Thyme butter is good with cooked onions, celery, asparagus, eggplant and tomatoes. Some grows here and we import it from Spain and France.



Fennel Seed



Red

Pepper

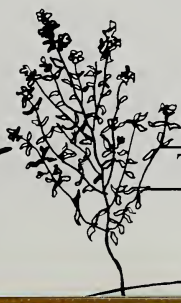
**SOURCES:**

*Cordray, Joseph. "Here's a Rundown on Spices and Herbs Important to the Meat Industry." THE NATIONAL PROVISIONER, April 27, 1985. A GLOSSARY OF SPICES, the American Spice Trade Association, 1985. P.O.B. 1267 Englewood Cliffs, N.J. 07632, (201) 568-2163. Send a stamped, self-addressed envelope for the publications list which includes the "Spice & Diet" cookbook and the "Spice Tips" booklets on low fat, low sodium and low calorie concerns.*

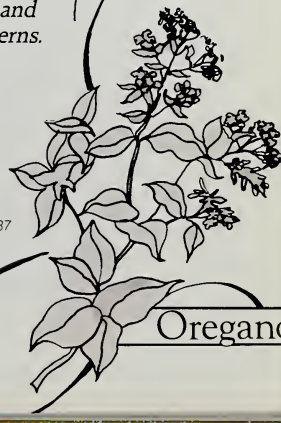
FOOD NEWS IF ALL 1987



Paprika



Thyme



Oregano

## Health and Nutrition

### Quizzing the Inventors of Supercarrot

USDA scientist Dr. Philipp Simon made headlines recently with the development of a "supercarrot". Simon and his research partner, Dr. Clinton Peterson even made the pages of *People* magazine! With interest so high, we thought it might be worthwhile to talk to Simon, a University of Wisconsin geneticist, at more length about the origin, uses and possible future of the "supercarrot".

**Q.** What's so super about your "supercarrot"?

**A.** Carrots are an excellent source of beta carotene, which is used by the body to make vitamin A. Severe vitamin A deficiency can lead to blindness and early death. Next to starvation, it's the world's leading nutritional problem. But it's so preventable. By eating just two of our nutritionally improved carrots a week, the body can produce enough vitamin A to prevent the blindness so prevalent in children of Third World countries.

**Q.** How did the supercarrot evolve?

**A.** Dr. Peterson and I work for USDA as part of the Vegetable Crops Research Unit. For many years, we have been involved in redesigning carrots both to contain more nutrients and to taste better. The carrots were selected from roots grown in California, Wisconsin and Florida. First they were evaluated for carotene content, to determine how good a vitamin A source they were. Then we did flavor selection for sweetness. We looked for the best tasting, darkest ones — the darker the carrot, the more carotene it contains. By 1986, we felt we had successfully created a carrot with a sufficient amount of carotene.



Supercarrot inventors (l. to r.) Clinton Peterson and Philipp Simon. Photo courtesy of USDA's Agricultural Research Service.

**Q.** Are they super-sized carrots?

**A.** They are normal in size and texture, but darker in color.

**Q.** Is there anything different about the growth or planting process?

**A.** No. Supercarrots need the same amount of water and sun as regular carrots. They grow in the same period of time.

**Q.** What can you tell me about the benefits of supercarrot?

**A.** Carrots are a popular, inexpensive, easy-to-grow source of vitamin A. There are many beneficial vegetables that very few people eat, like kale. No matter how good kale is, it won't be beneficial if it doesn't get eaten. Since carrots do get eaten, the benefits are high.

Supercarrot has 3 to 5 times as much carotene as a regular carrot.

**Q.** Are there any other benefits?

**A.** Carrots are an excellent source of good quality fiber. And vitamin A is known to be a cancer-protective chemical.

**Q.** Could eating too many carrots harm you?

**A.** It's very unlikely that you could eat enough carrots to do any harm. Unlike the vitamin A in fish oils (which can be toxic if taken in large doses) the carotene in carrots is not toxic.

**Q.** What Third World countries have you targeted as possible growth sites for the new carrot?

**A.** We are testing the supercarrot in many Third World countries to see if it can adapt to diverse climates and soils. We're working with universities and government departments in India, Pakistan, Indonesia, Bangladesh, Nepal, Chad, the Philippines, Haiti, Guatemala, Upper Volta, Kenya and Nigeria.

**Q.** Can I buy a supercarrot at my local store and will it cost more?

**A.** No and no. We don't think they'll be marketed in this country for a while. The plan is to first bring them to Third World countries where the vitamin A deficiency is the greatest.

The availability and price of the supercarrot in the USA will depend on how it's marketed. The stock we've developed so far can be used as "parents" by carrot breeding companies and should be available in seed catalogues next year.

**Q.** How will I recognize a supercarrot in the market?

**A.** Since fresh vegetables aren't usually labeled, you could buy a supercarrot and not even know it. Eventually, we might breed a distinctive, recognizable shape into it — for example, blunt or cylindrical instead of conical.

—Joanne Hough

## News Wires

### "Good" or "Select"—What's in the Name?

Would you be more likely to buy a lower-fat, less expensive grade of beef if it were called "Select" rather than "Good"?

USDA marketing experts think it may make a difference. They're proposing the change to enhance the image of "USDA Good" beef.

"We hope the new name will have more consumer appeal," said Dr. Michael May, USDA Agricultural Marketing Service. "The product has always been a valuable one, but many consumers thought 'USDA Good' denoted lower quality," May said. "If more people will try the meat if we call it 'Select,' the change will be worth the effort."

USDA is proposing the name change in response to a petition from the Public Voice for Food and Health Policy, a consumer group.

What exactly does a beef grade mean? While there may be minor variations in the nutritional value of different grades, the grade itself refers only to taste.

Traditionally, the higher grades reflected an American preference for more tender, more marbled—or "fatter"—cuts. For example, the presently designated "Good" grade has less fat than "Choice" or "Prime."

The department is now analyzing comments from consumers and the meat industry, and will soon make a final decision as to whether to go forward with the change.

— Richard Bryant

### Using the CAT Scan To Breed "Lean"

When Dr. Godfrey Hounsfield invented the CAT scan for human medicine in 1971, he probably didn't know that one day it would be used to

produce leaner animals.

"Because today's health-conscious consumers want wholesome meat that is low in saturated fat and cholesterol, meat producers are finding new ways to lower the fat composition of animals," said Dr. Kreg Leymaster, a research geneticist at USDA's Agricultural Research Center in Clay Center, Nebraska.

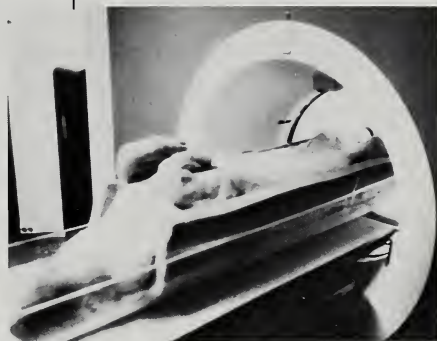
"Producers could use information from the CAT scan to monitor an animal's fat composition in response to different diets. Then they could select and breed the leaner ones," he said.

Leymaster's observations are based on experiments he conducted with pigs and sheep. Cattle are too large to pass through the human machine.

In explaining how he uses the CAT scan, Leymaster said the animals were fasted for 6 hours before scanning. "Fasting reduces the gases produced in the animals' digestive system and gives higher quality images," he said.

Pigs, because of their active nature, were also anesthetized to keep them calm. Sheep are far more placid and didn't need anesthesia.

A computer summarizes the data from the scan and produces cross-sectional images. "These images show distinct separation of bone, muscle and fat," said Leymaster.



Very "calm" pig ready for CAT scan.

How soon will this equipment be available to meat producers? The CAT scan unit costs about \$1 million. "At that price, it's unlikely that producers will be using the CAT scan tomorrow," said Leymaster. "Presently it's a good research tool!"

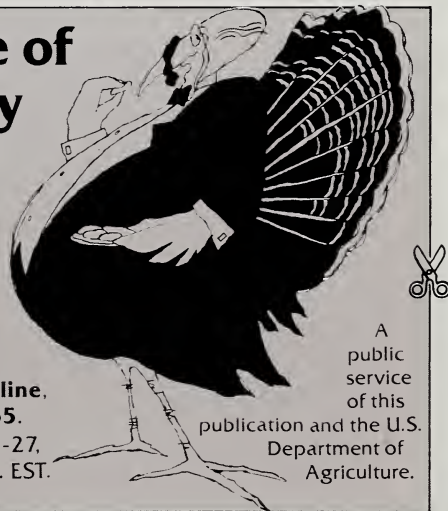
For more information, contact: Dr. Kreg Leymaster, Research Geneticist, USDA Agricultural Research Service, P.O. Box 166, Clay Center, Neb. 68933. Phone: (402) 762-3241.

— Irene Goins

## Take Care of Your Party Animal

For questions on the safe handling, storage, and preparation of turkey, and other meat and poultry products, call the

**Meat and Poultry Hotline,**  
tollfree, **800-535-4555.**  
Holiday hours, Nov. 2-27,  
9:00 a.m. to 5:00 p.m. EST.



A public service of this publication and the U.S. Department of Agriculture.

# “Food Safety is No Mystery” with USDA’s New Training Video”

The “case is afoot” when a police sergeant is hospitalized after eating ham salad at Gabe’s restaurant.

That puts the sleuths in USDA’s new training video for food service workers — a young detective and a health inspector — on the trail to find the source of the food poisoning.

They suspect Benny, a notoriously poor food service worker who’s been responsible for other outbreaks in town.

Tracking Benny through a diner, nursing home, school and hospital — the tape runs 28 minutes — allows the introduction of key food safety concepts as the investigators discuss safe and unsafe practices at each facility.

An excellent training manual with a step-by-step trainer’s guide and in-the-kitchen exercises for workers accompanies the video.

Four colorful “key concept” posters are also included.

What training areas are covered?

1. Sanitation and Personal Hygiene;
2. Safe Food Preparation;
3. Preventing Cross Contamination;
4. Safe Cooling and Reheating of Foods.

Each section of the manual also gives “Hints for Managers” — experience-based ways to ensure safe food handling.

**Cost:** The entire package — videotape, trainer’s manual, and posters — is only **\$20.50**. To receive your video, fill out the order form below.



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**YES!** I want to order the “Food Safety Is No Mystery” training modules and videotape for just \$20.50.

Send the tape in  VHS  Beta  ¾" Tape\* (check one)

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## More on Spices

Beyond their intriguing flavor, a chief reason for the current popularity of spices in the American diet is that they are low both in sodium and calories.

Here, from **Agricultural Handbook 8-2, Composition of Foods—Spices and Herbs** (1977), are the exact figures.

### Sodium Content of Spices

Spice	Milligrams/ teaspoon	Spice	Milligrams/ teaspoon
Allspice	1	Mustard Seed,	
Basil	*trace	yellow	trace
Bay Leaves,		Nutmeg	trace
crumbled	trace	Onion Powder	1
Caraway Seed	trace	Oregano	trace
Cardamom	trace	Paprika	1
Celery seed	3	Parsley, dried	1
Cinnamon	1	Pepper, Black	1
Cloves	5	Pepper, Red	1
Coriander Seed	1	Pepper, White	trace
Cumin Seed	4	Poppy Seed	1
Curry Powder	1	Rosemary, dried	1
Dill Seed	trace	Sage	trace
Fennel Seed	2	Savory	trace
Garlic Powder	1	Sesame Seed	1
Ginger	1	Tarragon	1
Mace	1	Thyme	1
Marjoram, dried	trace	Turmeric	1

\*Trace = less than 1 mg.

Note that the sodium content of spices is expressed in milligrams. The average sodium content of all these spices is less than 1 milligram per teaspoon. Naturally, that amounts to even less per single serving. Many are lower, while the highest — cloves — measures only 5 mg. per teaspoon. Compare this to the roughly 2,000 milligrams of sodium in a teaspoon of salt.



To put this in perspective, it is estimated that the average American consumes some 2,300 to 7,000 mg. of sodium a day. This puts many people over the 1,100 to 3,300 mg. range estimated as "safe and adequate."

Be aware, though if you're watching sodium intake, that some spice blends and, of course, onion and garlic *salt* contain sodium. Check the ingredients list.



It's easy to see why spices and herbs are great friends to dieters. Individually, they add negligible calories in the amounts ordinarily used. And even several seasonings used in one dish add no more than a few calories per serving.

But what a flavor difference they make in low-calorie fare! With a creative use of spices, even a restricted menu can be interesting — something you can live with. And that is the real secret of weight control.

### Spice Calorie Counts

Spice	Calories/ teaspoon	Spice	Calories/ teaspoon
Allspice	5	Mustard Seed,	
Basil	4	yellow	15
Bay Leaves,		Nutmeg	12
crumbled	2	Onion Powder	7
Caraway Seed	7	Oregano	5
Cardamom Seed	6	Paprika	6
Celery Seed	8	Parsley, dried	1
Cinnamon	6	Pepper, Black	5
Cloves	7	Pepper, Red	6
Coriander Seed	5	Pepper, White	7
Cumin Seed	8	Poppy Seed	15
Dill Seed	6	Rosemary, dried	4
Fennel Seed	7	Sage	2
Garlic Powder	9	Savory	4
Ginger	6	Sesame Seed	16
Mace	8	Tarragon	5
Marjoram	2	Thyme	4
		Turmeric	8

## The Children's Page

by Mary Ann Parmley

You've heard of an open-book quiz where you open the book to find the answers.

This open lunchbox quiz shows how much you know about keeping your lunch safe from germs. Check your answers against the **Answer Box**.

If you take your lunch to school, you're one of 23 million American kids who do. Does your lunchbox look like this plastic one?

If your dad took his lunch to school, he probably had a metal case. Maybe it had a picture of a movie star cowboy like Hopalong Cassidy on it.

Lunchboxes and thermos jars are not much older than your father. You couldn't buy them until the 1940s. They became popular in the 1950s.

# An Open

**Answer these questions correctly and join the germ-busters club . . .**

**1. Thermos tactics**—The thick walls of the thermos keep soup safely hot. Just don't take the \_\_\_\_\_ out before lunch. That lets cooler air in and lowers the temperature so germs can grow. Germs grow fast between 85° and 100° F.

### Answer Box:

**1.** stopper; **2.** refrigerator; **3.** soggy; **4.** Germs grow at warm temperatures; **5.** Germs.



(Lunchbox courtesy Aladdin)



# Lunchbox Quiz

**2. Frosty juice**—Freeze the fruit juice in paper cartons to keep other cold foods cold. Most germs don't grow well at 40° F or below. That's the temperature of the \_\_\_\_\_ in the kitchen where you keep all your cold food.

**3. A Real Cool Sandwich**—Freeze your sandwich the night before to keep things even cooler. Pack lettuce or tomatoes in a plastic bag. Add them at lunch time. They get \_\_\_\_\_ if you freeze them. Add mayonnaise at lunch too.

**4. Don't eat the cold-pack!** You wouldn't bite into that frozen liquid, would you? Freeze it over-night before adding it to your lunch. Store your lunch in a cool place at school. Never leave it in the sun or near a heater. Why?

**5. A snazzy, jazzy lunchbox is a clean box.** Wash your lunchbox every night with hot soapy water to keep \_\_\_\_\_ from growing. Let it dry open to the air.

**Read more.** To learn more about the safe handling of lunch, picnic and camping-out food, order SAFE FOOD TO GO, 597R, Free, from the Consumer Information Center, Pueblo, Col., 81009.

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